2008 GRANT PROPOSAL SOLICITATION

California Hydrogen Highway Network

Modular Fueling Stations

"Please Note Compressed 6 Week Schedule"

Mobile Source Control Division
Sustainable Transportation Technology Branch
California Air Resources Board
December 19, 2008

California Air Resources Board
California Hydrogen Highway Network Refueling Stations (CaH_2Net)

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I. INTRODUCTION

Co-fund three to four new, rapid deployment, modular, skid or container-based pre-cooled, hydrogen refueling stations in preparation for upcoming fuel cell vehicle rollouts.

A. Purpose

The purpose of this Grant Solicitation is to solicit competitive bids from experienced and qualified teams to design, secure permits, build, maintain and operate hydrogen refueling stations to serve as part of California's Hydrogen Highway Network. Qualified teams may be made up of traditional oil, gas and compressed natural gas (CNG) suppliers, and other retail operators who have experience operating and maintaining retail refueling outlets. Other viable teams may consist of utility providers, transit agencies and educational institutions who understand and have the necessary commitment and financial backing to help the State transition to a clean low carbon transportation fuel.

These State funded stations will be highly visible, contain a significant educational component and, therefore, will help demonstrate the viability of using hydrogen as a consumer-friendly transportation fuel. The stations will be public access stations. By this we mean that after training and vehicle inspections are performed (where necessary for example non-original equipment manufacturer (OEM) or conversion vehicles), the stations will be accessible to both fuel cell and hydrogen internal combustion engine vehicles.

The term of these grants will be approximately 48 months from the signing of the Grant Agreement or approximately February 2013, unless otherwise spelled out in the agreement. At the conclusion of the grant period, the State of California shall have no further ownership or financial interest in the capital equipment of this station. However, intellectual interest may remain at a reduced commitment (periodic reports still being submitted), as spelled out in the final agreements. After the grant period concludes, the Grantee and partners will have sole ownership and responsibility for each station and all associated equipment.

Funding available for this grant solicitation are to be up to 70/30 cost share with the state paying the 70 percent portion. There are two different station configurations, renewable and non-renewable with different funding amounts. A maximum of $2.3 million per renewable station, and a maximum of $1.7 co-funding will be made available.

To comply with the goals of Senate Bill 1505, all stations funded with State funds must collectively average at least 33.3 percent renewable hydrogen, combined dispensing capacity. In other words, if three stations were funded, and the combined dispensing capacity was 120 kg/day, then at least 40 kg of that total 120 kg/day must be renewable as per SB 1505. For example, if one 100 kg/day renewable station was funded, then two non-renewable stations of equal dispensing capacity could also be funded, as long as the 100 percent renewable station made up at least one third of the total dispensing output.

B. Brief – Scope of Work

Contractor agrees to design, build, operate, and maintain a new hydrogen fueling station or combined fuel cell energy/fueling station (s). The new station will meet the stated environmental requirements, capacities, and specifications. The new station must be operational by June 30, 2010, and remain operational for at least three (3) years after commissioning. The contractor/operator is to provide the full suite of reports during the entire three (3) years of station operation. ARB will provide up to 70/30 (70 percent of the total cost) matching funding for the design, construction, maintenance and operation of the hydrogen station. ARB is a co-funder and

will have no ownership interest in the hydrogen station. A detailed Scope of Work is contained in Exhibit A.

C. Background

The California Hydrogen Highway Network (CAH2Net) was initiated by Governor Schwarzenegger in April of 2004, by Executive Order S-07-04. The CAH2Net is a State initiative to promote the use of hydrogen as a means of diversifying our sources of transportation energy used while ensuring environmental and economic benefits. As presented in the California Hydrogen Highway Blueprint Plan, the hydrogen refueling network is to be implemented in phases. Recent experience with the current network of stations suggests that regional clusters of fewer stations with mixed capacity will better serve the initial vehicle rollout. Eventually, the clusters will expand and bridging stations will connect the clusters.

Hydrogen fuel cell vehicles are important to the State as they are one of the few vehicle technologies that have the potential to reduce ground-level ozone and greatly reduce greenhouse gas emissions (GHG). The California Hydrogen Highway Network is also a key part of the States multi-pronged strategy to increase our State's energy independence. Assembly Bill 32 - known as the California Global Warming Solutions Act, requires the State of California to reduce greenhouse gas emissions to 1990 levels by the year 2020. Assembly Bill 1493 Chapter 91- will greatly reduce emissions from the State's massive fleet of passenger cars, SUVs and pickup trucks – currently more than 23 million. Executive Order S-1-07 - the Low Carbon Fuel Standard (LCFS) (issued on January 18, 2007), calls for a reduction of at least ten percent in the carbon intensity of California's transportation fuels by 2020. Assembly Bill 1007 - (Pavley, Chapter 371, Statutes of 2005) requires the California Energy Commission with ARB's input to prepare a State plan to increase the use of alternative fuels in California. Hydrogen is one of the few alternative fuels that can help reach our greenhouse gas goals.

D. Available Funding

The funding available through this Solicitation 08-606 for hydrogen fueling infrastructure is approximately $7 million. We expect a modular, dual pressure, pre-cooled station of 40-50 kg/day capability to cost approximately $2 – 2.5 million installed. However, non-modular more retail type stations are eligible. Assuming a State 70/30 co-funding ratio, this solicitation should add three or four stations to the States hydrogen refueling network. This would include $2.3 million co-funding for a station with renewables, and $1.7 million co-funding for a non-renewable station. Final station funding scenarios will depend on the combination of funding requested and quality of the grant proposals that are received. ARB will determine what combination of proposals best satisfies the State's renewable targets and infrastructure goals of the California Hydrogen Highway Network.

II. GRANT PROPOSAL INSTRUCTIONS AND INFORMATION

A. Key Action Dates

The table below is the tentative time schedule for the release and processing of this Grant Solicitation. ARB reserves the right to modify the Solicitation and/or change the dates and times at its sole discretion, prior to the date fixed for submission of proposals, by the issuance of an addendum that will be posted on the California Hydrogen Highway Network website. http://hydrogenhighway.ca.gov/

Key Actions	**Dates**	**Time**
Solicitation available to prospective proposers	12/19/08	N/A
Written Questions Deadline	01/09/09	3:00 p.m.
GREET Submittal Deadline (optional)	**01/16/09**	**3:00 p.m.**
Answers to Questions Posted	01/23/09	N/A
Proposal Submission / Receipt by ARB	**01/30/09**	**3:00 p.m.**
Posting of Intent to Award Notice(s)	02/06/09	N/A
Anticipated date for work to begin	04/06/09	N/A
Station Construction Complete	06/30/10	N/A

Proposed award of agreement(s) is dependent upon ARB's internal processing procedures and approval, including Administrative Services, Legal and Mobile Source Control Divisions.

B. Questions Regarding the Grant Proposal Requirements
All questions or concerns related to the financial Grant requirements, other than those specifically related to station specifications with the exception of the optional, early GREET model submission (please see below, paragraph C), must be directed in writing to:

Air Resources Board
Contract Services
Attn: Patty Gutierrez
Fax: (916) 327-2940
Email: pagutier@arb.ca.gov

All questions must be received by January 9, 2009. Answers to all questions submitted will be posted on the California Hydrogen Highway Network website http://hydrogenhighway.ca.gov/ on or about January 23, 2009. Please note that no verbal information given will be binding upon the State, unless such information is issued in writing, as an official addendum to all parties/participants.

C. Greenhouse Gases, Regulated Emissions and Energy Use in Transportation (GREET) Model
All final proposals must submit GREET model data to illustrate to ARB that the station meets the Health & Safety Code and SB 1505 environmental requirements; however, to help ensure compliance with emissions requirements, you may additionally submit an early verification request to confirm compliance. Staff, as a service to proposers will run the GREET model early in the proposal preparation period, to help ensure that the stations being proposed meet the minimum environmental requirements before final Grant/proposal submittal deadline. To help ensure that all the required data is submitted in the proper format, please refer to the **GREET Inputs Worksheet** in Attachment 5.

Trial GREET data input worksheets must be submitted by January 16, 2009 to Grant Manager, Michael J. Kashuba, via email to:

mkashuba@arb.ca.gov

Staff will run the model based on the received worksheet data, and depending on workload, contact individuals within five working days after its submittal. Since some of the GREET input data may be proprietary, these discussions will be confidential and the information will not be posted. This will enable those who need to adjust station-design to do so before the final proposal submittal. Proposer(s) must fill out the information requested in the GREET Inputs Worksheet. Information

requested includes: method of hydrogen production, hydrogen production location, and delivery method/distance travelled, hydrogen feedstock, and energy use estimates, among other data.

D. Required Proposal Content
The proposal must contain the following components, information and documents as outlined below:

1. **Title Page.** The purpose of this page is to provide in one location information needed by ARB administrative staff. It must contain the following items:
    a) the title of the proposal, which must be the same as the title of the Proposal Solicitation;
    b) date of proposal;

2. **Cover Letter / Letter of Commitment.** This introductory letter must be on the company's letterhead and include the following information and statements:
    a) A statement that the proposal was prepared for ARB's Mobile Source Control Division;
    b) Warranty Statement. Contractor must commit to warranty work and materials for a period of at least three (3) years against any type of defect in material or workmanship. Contractor will be responsible to repair and/or replace defective parts with new or reconditioned/updated parts made by the manufacturer as long as their performance is equal or superior to the original specification parts.
    c) The name and address of your company [NOTE: You may use a Post Office box, but please provide your company's street address for our records]; and
    d) The name, title, and signature of a company official authorized to bind the proposal

3. **Table of Contents**

4. **Abstract.** A one-page abstract of the proposed project briefly summarizing the main point of the various sections of the proposal.

5. **Summary**. A concise narrative outlining the key items in the proposal including the features and benefits of the proposal.

6. **Project Schedule/Milestones**. A comprehensive calendar of the entire project from the submission of the bid to the completion of the co-funded funded portion of the station's operating lifetime - for example approximately three years' time. The calendar must include timeframes for each major task, highlighting the milestones, critical paths and responsible party for each. The tasks will include site preparation, inspection, equipment siting, permitting, testing, and other related events. See example in Appendix 7, Exhibit B, Attachment B, "Sample Project Schedule/Milestones."

7. **Engineering Section**. Proposed location/site drawings, site preparation, construction, engineering drawings and specifications including major equipment specifications and acquisition schedules. Include a narrative describing each of the proposed test/certification procedures to verify and validate the correct performance and adequate safety of the station.

8. **Facilities and Resources**. Explain what the services will be and what type equipment is needed to perform the services. Explain where the services will be performed.

9. **Minimum Qualifications Explanation**. Outline and provide detailed information as to how each of the minimum qualifications has been met, and to what extent if any, the minimum qualifications have been exceeded.

10. Management Plan. A project management plan including the management structure and project organization.

11. Team Identification Section. Name all partners, their qualifications, capabilities and roles. The proposal must identify by name all key personnel assigned to the project and clearly describe their individual areas of responsibility. For each individual, include company, position title, job descriptions, individual resumes, and contact information.

12. Environmental Requirements. Using GREET Inputs Worksheets from Attachment 5, present calculations that illustrate that the proposed hydrogen production pathway satisfies the: (1) new renewable requirement for the category you have selected; (2) thirty percent (30 percent) reduction in greenhouse gas; (3) fifty (50 percent) reduction in Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx); and (4) no increases in toxic air pollutant goals set forth in Sections 43868 and 43869 of the Health and Safety Code, relating to fuel. See Attachment 6, GREET Inputs Worksheet / Hydrogen Production and Renewable Form, and the optional early confirmation in Section III.C

13. Codes and Standards. Provide a list all the applicable codes and standards necessary for the construction and operation of the fueling station. Include a detailed safety plan including a hydrogen leak detection plan describing the operation of alarms, the evacuation plan, and any training materials that may be necessary. The proposal will state what agency or authorities will be providing the respective training.

14. Cost Detail. The proposed work shall be broken down into the outline in Work Plan and Work Schedule for the purpose of this proposal, such as site preparation, equipment delivery, installation, testing and certification, operation, etc. Use Attachment 2 Proposers Cost Sheet as a guide in preparing your cost proposal. On this worksheet, please fully itemize those costs that you plan on using to obtain State matching funds. List all sources of funding, i.e., grants, matching funds, or co-funding. The Cost Detail Form should be paginated as a stand-alone document using the page number format of “Page xx of xx.”

The Cost Worksheet must include, at a minimum, the information described below:

a. Summary – concise write-up itemizing different estimated costs of the station equipment and labor.

b. Cost Spreadsheet – This contract is a firm fixed cost contract. All costs must be provided for each task and deliverable. Use estimates only when hard cost data is not available. All items listed below are eligible for cost share.

c. Labor –List total number of hours and hourly billing rate for each level of professional staff. List direct labor rate, overhead rate and amount, fringe benefit rate and amount. List administrative rate and amount. Provide a justification of rates of pay **and for any overhead costs that exceed 13 percent** as well.

d. Maintenance costs – Include an estimate of maintenance costs over the three year contract period. Include description of all warranty coverage and an estimate of routine and preventative maintenance, as well as a reserve for unscheduled maintenance.

e. Operating costs- Contractor will include an estimate operating costs for the 3 year period and include them in the proposal..

f. Real Estate Cost Share Allowance– For new stations only, provide value of real estate (not including structures or improvements), include a certified written appraisal. Up to 25 percent of the property value may be claimed as cost share, not to exceed $100,000.

g. Real Estate Access -– Proposal must include a letter stating that the team has legal access to build and operate at station on the premises, or produce a copy of the deed stating that the team owns the land.

h. Other direct Costs – This category may include such items as postage, mailing, courier, printing/reproduction costs, etc. Provide basis of estimate for these costs. Travel Costs – Indicate amount of travel cost and basis of estimate to each destination, purpose of trip, airline fare and/or mileage expense, per diem costs lodging costs and car rental. Travel costs must be in accordance with the State of California Department of Personal Administration **(DPA)** guidelines used for State employee travel. **All such travel costs and per diem rates shall not exceed those paid to State employees. All such travel costs and per diem rates that exceed those set by DPA, shall be borne by the winning proposer.**

i. Equipment costs - provide proposed prices of commercially available equipment/components (where available) and include catalog price, price list, or best estimate of price.

j. Funding Sources - List name, address and full contact information for all sources of funding including exact amount committed.

k. Other Required Submittals. This last section must contain all other required information and/or documents including:

- Project summaries or detailed descriptions
- Copies of current business licenses
- Copies of professional certifications
- Letters of commitment from automobile manufacturers and/or conversion companies as outlined in Section VI
- Std. 204 Payee Data Record. See Attachment 4.

E. Submission of Grant Proposal.

Proposals should provide straightforward and concise descriptions of the proposer's ability to satisfy the requirements of this Grant Solicitation. The proposal must be complete and accurate. Omissions, inaccuracies or misstatements will be sufficient cause for rejection of a proposal.

The original proposal must be printed on both sides and marked "ORIGINAL COPY." All documents contained in the original proposal package **must have original signatures** and **must be signed by a person who is authorized to bind the proposing firm**. The signature must indicate the title or position that the individual holds in the firm. All additional proposal sets may contain photocopies of the original package. Due to limited storage space, the proposal package should be prepared in the least expensive method (i.e., cover page with staple in upper left-hand corner, no fancy bindings such as spiral binding, 3-hole punch, etc.).

All proposals must be submitted under sealed cover, labeled or identified appropriately, and, your firm name, address, and must be marked with "DO NOT OPEN," as shown in the sent to the Air

Resources Board by the dates and times shown in Section III. A., **Key Action Dates**. Proposals received after this date and time will not be considered.

A minimum of ten **(10) sets** of the proposal must be submitted that includes one (1) original and nine (9) copies.

Responses to this Grant Solicitation shall be submitted in a sealed package/envelope. The proposal package/envelope must be plainly marked with the Grant Solicitation number and title following example:

SEALED PACKAGE/ENVELOPE
Agency/Firm Name Address **GRANT SOLICITATION No. 08-606** ***ESTABLISH DEMONSTRATION HYDROGEN REFUELING STATIONS*** **PROPOSAL DO NOT OPEN**

If the proposal is made under a fictitious name or business title, the actual legal name of Proposer must be provided.

- All proposals shall include the documents identified in Required Attachment Checklist (see Attachment 1). Proposals not including the proper "required attachments" shall be deemed non-responsive. A non-responsive proposal is one that does not meet the basic proposal requirements.

- Time of delivery is of the essence and must be adhered to. Any proposal received after the due date and time deadline will be rejected by ARB as not complying with a mandatory requirement of this Grant Solicitation. **NOTE:** Postmark time is **NOT** acceptable.

- All correspondence, invoices, bills of lading, shipping memos, packages, etc. must show the Grant Solicitation or contract number and Grant Solicitation Title.

- Mail or deliver proposals to the following address:

U.S. Postal Service Deliveries	Deliveries to Street Address (UPS / FedEx / Other Service)
Air Resources Board	Air Resources Board
ASD-Contract Services Section	ASD-Contract Services Section
Attn: Patty Gutierrez	Attn: Patty Gutierrez
P.O. Box 2815	1001 I Street, 20th Floor
Sacramento, CA 95812	Sacramento, CA 95814

Postmark dates will not suffice to meet the stated deadlines.

No application documents may be submitted by fax or email

F. Proposal Withdrawal

1. A proposer may modify a proposal after its submission by withdrawing its original proposal and resubmitting a new proposal prior to the proposal submission deadline. Proposer modifications offered in any other manner, oral or written, will not be considered.

2. A proposer may withdraw its proposal by submitting a written withdrawal request to ARB signed by the proposer or an agent authorized in accordance with Section II H, titled "Signature." A proposer may thereafter submit a new proposal prior to the proposal submission deadline. Proposals may not be withdrawn without cause subsequent to proposal submission deadline.

G. Proposer Responsibilities

1. Before submitting a response to this solicitation, Proposer(s) should review, correct all errors, and confirm compliance with the Grant Solicitation requirements.

2. Costs incurred for developing proposals and in anticipation of award of the agreement are entirely the responsibility of the proposer and shall not be charged to ARB. This includes, but is not limited to: delivery, drayage, express, parcel post, packing, cartage, insurance, license fees, permits, cost of bonds, or for any other purpose unless expressly included and itemized in the proposal solicitation.

3. Prior to submission of proposal, proposer shall examine any drawings, specifications, and instructions or other materials required and included in the proposal package to ensure that they meet all the requirements stated in Grant Solicitation.

4. It is the **proposer's responsibility** to promptly notify ARB contract analyst identified in the solicitation, by phone, letter, fax, e-mail, or visit, if the proposer believes that the solicitation is unfairly restrictive, contains errors or discrepancies, or is otherwise unclear. Notification **must be done immediately** upon receipt of the solicitation in order that the matter may be fully considered and appropriate action taken by ARB prior to the closing time set to receive solicitation responses. Such notification must be submitted no later than the question and answer period referenced in the Key Action Dates. All such correspondence received after the question and answer deadline will not be considered.

5. Proposer is responsible to review, read, understand, and comply in full with the attached sample agreement.

6. Each proposal must constitute an irrevocable offer for a period of at least 180 working days after proposal submission.

7. The successful proposer must provide evidence such as letters of reference and project summaries that highlight the team's specific experience in designing, planning, engineering, constructing, testing, operating and maintaining gaseous fueling stations. The evidence must illustrate that that they have the qualifications, competence, experience, resources, and business integrity necessary to carry out the work under the contract as expected. Proposer must own a legitimate business and be registered in the State of California as such and to operate said business in the State. All business entities doing business within the State and not operating as a corporation or partnership must be registered with the appropriate jurisdiction. All businesses will have to be registered with the Secretary of State or appropriate State jurisdiction prior to date of contract award. All businesses not registered with the appropriate jurisdiction or with the Secretary of State prior to award date will be deemed non-responsive and ineligible for contract award.

H. Signature

1. An individual who is authorized to bind the bidding firm contractually shall sign the required Cover Letter. The signature must indicate the title or position that the individual holds in the firm. An unsigned proposal may be rejected.

2. All documents requiring a signature must bear an original signature of a person authorized to bind the bidding firm and must be duly authorized to sign the contract/agreement if selected for award.

I. Disposition of Proposals

Upon proposal receipt, all original documents submitted in response to this Grant Solicitation will become the property of the State of California and ARB, and will be regarded as public records under the California Public Records Act (Government Code Section 6250 et seq.). The following information shall be kept from public review unless mandated by Judicial Order: confidential information, such as social security numbers, medical information; trade secrets, copyrighted materials and other information deemed non-releasable by the Public Records Act.

III. GRANT PROPOSAL REQUIREMENTS

Proposals and proposers must meet all of the minimum qualification requirements stated in the Grant Solicitation. Each proposal will first be reviewed to ensure the following: proposal is received by date and time specified; proposal contains all the required documents; it meets the format requirements specified; and meets the station minimums for environmental standards, capacities, and siting requirements. An individual proposal must be submitted for each station. No one proposal may include multiple stations. However teams may submit more than one proposal.
A responsive proposal from a responsible bidder is one that meets the definitions as stated below. All grant proposals that are deemed to be considered responsive from a responsible bidder shall be scored as part of Phase II.

A. Responsive and Responsible Bidder

In order to be eligible for award, a grant proposal must be evaluated as responsive to all Grant Solicitation requirements and the bidder/proposer must be evaluated as responsible, both of which are defined below.

1. Definition of Responsive/Compliant Proposal:
   A proposer's solicitation response must be compliant with solicitation requirements without material deviation from the terms and conditions of the proposed contract. This includes but is not limited to, a proposal that complies with all Grant Solicitation instructions, requirements, and one that submits all required documentation such as but not limited to: drawings, plans, specifications, references as stated in Grant Solicitation, signed and completed certifications, or other documents requested and/or required within the time and date specified in this Grant Solicitation.

   A non-responsive proposal is one that does not meet the requirements stated in the Grant Solicitation, fails to provide all required documents/attachments, or proposals that deviate substantially from requirements. *A proposal that changes the terms and conditions of the Grant Solicitation or the contract provisions will be considered a counterproposal and will be rejected as non-responsive*.

2. Definition of Responsible Bidder/Proposer:
   The question of whether a particular proposer is a responsible proposer involves an evaluation of the proposer's experience, facilities, reputation, financial resources, and other factors existing at the time of contract award. If determined to be not a responsible proposer, your proposal will be rejected.
   In determining whether a proposer is a responsible proposer, ARB may require proposer(s) to submit evidence of their qualifications at such times, and under such conditions, as it may require.

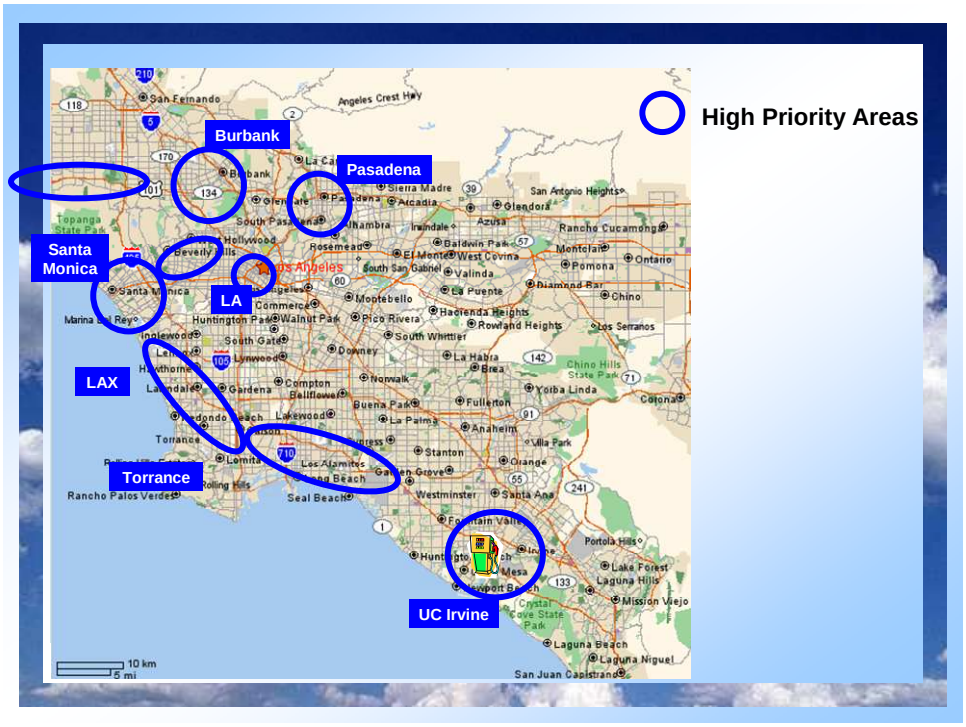
B. Minimum Qualifications for Proposer(s)

At least one partner of the proposer's team must have at least three (3) years experience designing, planning, engineering, constructing, testing, operating and maintaining gaseous fueling stations as listed in this grant solicitation**.** Each proposer as part of the minimum qualifications ***must provide*** a list of references detailing specific work experience dealing with hydrogen or gaseous fueling as listed in proposal. Failure to complete Attachment 3 and to include references may result in proposal being deemed non-responsive, and ineligible for award.

IV. QUALIFYING STATION LOCATIONS

A. Targeted Infrastructure Areas

The high primary areas of interest for this solicitation are by the ellipses in the map and discussed below.



Southern California, specifically, the greater Los Angeles area is a national test case for developing hydrogen fuel cell vehicles and infrastructure. Therefore, depending on the proposals received, at least one new qualifying station will be selected from within the greater Los Angeles area cluster. Station proposals will be considered from within the remaining clusters, including the greater San Francisco Bay Area and the greater Sacramento Area. Stations may be sited within the city limits of the following cities and will be considered along the highway corridors that connect them:

Los Angeles Area Cluster

- Pasadena
- Sherman Oaks, Encino, Studio City
- Los Angeles, Westwood, Hollywood, West Hollywood, Beverly Hills, Brentwood
- Torrance, Long Beach, Carson, Irvine, Lake Forest, Laguna Hills, Newport Beach

San Francisco Bay Area Cluster

- San Francisco, Brisbane, South San Francisco, San Bruno
- San Mateo, Redwood City, Palo Alto,
- Mountain View, Sunnyvale, Santa Clara

Sacramento Area Cluster

- Sacramento, West Sacramento

Other Areas

Additional station sites outside the aforementioned areas may be considered contingent on OEM letters providing vehicle commitments.

The Grant award(s) will be made to the responsive and responsible proposer earning the highest overall score with first priority being given to stations proposed in the greater Los Angeles area. Stations proposed in the greater San Francisco Bay Area and Sacramento will be considered next. To help ensure the stations are not located adjacent to each other, the highest scoring overall fueling station proposal will be selected first. The second station selected will be at least five miles (unless otherwise justified) driving distance from the first ranked station proposal and each subsequently ranked station proposal.

B. Station Spacing/Proximity to Nearest Station

In the early stages of infrastructure development, it is important to select locations that offer both customer convenience and maximize hydrogen throughput. This approach often dictates that stations be spaced far enough apart so they serve different customer groups and do not "compete" with each other. This meant that station spacing of five or ten miles minimum was thought to be a reasonable rule. However, at this early stage in station/infrastructure development, experience indicates that it may be wise to have stations closer together so a "next nearest" station could serve as a customer back-up station if one station is out of commission for maintenance or some other reason. Therefore, in an effort to minimize the "stranding' of customers when one station may be temporarily unavailable for refueling, the concept of multiple closely spaced or "neighborhood stations" will be considered. As such, the 5 – 10 mile spacing between stations guideline may be waived subsequent to the new station proposal containing adequate OEM vehicle commitment.

C. Eligible Station Configurations

Hydrogen vehicle fueling systems continue to advance and progress at an impressive rate. This solicitation focuses on the immediate need for infrastructure. Therefore we are interested in proposals containing modular or skid mounted transportable station designs that can be deployed in less time than traditional large capacity full retail stations. We are interested in seeing station proposals that contain the latest in dual pressure dispensing, pre-cooling/fast fill and IR data communications. Also of interest is improved station accessibility, overall customer convenience, pleasing appearance, easy billing and lowered refueling times. Stations may use non-renewable or renewable resources. However, stations with fully integrated hardware designs will be accepted.

V. STATION MINIMUM STANDARDS AND GUIDELINES

To aid in the standardization of equipment and fueling protocols, station proposals must target the following specifications, capacities, and Society of Automotive Engineers guidelines and specifications in the design of their stations: The station proposal must meet or exceed the minimum qualifications listed here in order to be considered for competitive scoring and subsequent funding. Stations not meeting the minimum specifications stated herein will not be scored and therefore will be disqualified and not considered for funding

1. Renewables/Environmental Requirements (as verified by GREET)

- No minimum renewables requirement - can be 0 percent to 100 percent
- 30 percent Reduction of Greenhouse Gas emissions relative to gasoline (well-to-wheel)
- No Increase in Toxic Pollutant emissions
- 50 percent decrease in Criteria Pollutants: ROG + NOx (well-to-tank)

2. Capacities and Specifications

- The compression, storage, and generation equipment shall result in a dispensing capacity of no less than 40 kg/day, seven days a week (excluding scheduled and unscheduled maintenance)
- Able to perform 3 consecutive 5 kg, 70 Mega Paschals (MPa) fills in 45 minutes (10 min/max for first fill)
- Able to perform 3 consecutive 5 kg, 35 MPa fills in 25 minutes (5 min/max for first fill)
- Ability to provide real-time reporting of station status and remote monitoring of station alerts
- Filling communications hardware as per SAE-2799
- Dispense fuel cell grade hydrogen per SAE J-2719 or equivalent at nozzle
- Nozzle geometry compliant with SAE J2799 for 70 MPa and SAE 2600 for 35 MPa
- J-2601 – defining fueling strategies for compressed hydrogen vehicle fueling communication devices
- Fueling Specification for 70MPa Compressed Hydrogen Vehicles – Revision Version (A) with the 3 minute 5 kg fill is the target – Appendix 6.

3. Operational Parameters

- Retail like environment desirable
- Easy ingress/egress
- Well lit
- Convenient/readily identifiable signage
- Six AM to ten PM hours of operation
- Self serve, menu driven dispenser
- Attendant available with adequate notice
- Station operation status available online
- Infra Red Data (IRDA) and non-com dispensing
- Convenient payment scheme
- No Personal Protection Equipment (PPE) requirements
- OEM/station operator Indemnification issues clearly spelled out

4. Price of Hydrogen Charged to Consumer

- Any sale of hydrogen on the basis of weight, measure, or count (where the price varies depending on the quantity sold) is a commercial transaction and requires the use of a device approved by the California Department of Food and Agriculture, Division of Measurement Standards (DMS) for commercial use. As no hydrogen dispensing equipment is currently approved for commercial use, hydrogen cannot be sold on the basis of weight, measure, or count.
- Current unapproved equipment could be used if hydrogen were offered for free, charged, based on a subscription fee, fixed cost per month, or other agreement where the price does not vary with the weight, measure, or count, as these would be non-commercial transactions. A proposed pricing scheme therefore must be included in the proposal in addition to being addressed and agreed upon in the OEM vehicle commitment letters.
- Each Grant Proposal must include a plan for type approval through DMS in the initial start-up phase.

VI. AUTO MANUFACTURER SUPPORT LETTERS

People typically refuel their vehicles in three main geographic areas: near their home or residence, near their place of work, or somewhere in between those destinations. To help ensure that the stations will see adequate use and thruput, we are requiring the following. All proposals must contain letter(s) of commitment from OEMs and from conversion companies if appropriate. The letters will include model-types, vehicle fuel capacity, storage pressure, and, most importantly, contain the total number of vehicles that will be expected to use the station, and the context (home, work or pass through usage). The letter should also include an estimated fee/scheme that the vehicle driver may be expected to pay for fuel dispensed at that particular station.

A OEM Contact List

The following is a partial contact list of OEMs who may have fuel cell vehicle fleets operating in California. Individuals on this list may be contacted to help determine whether a proposed location may be suitable for OEM use.

Chrysler
Jessie M. Schneider, Manager
Fuel Cell Vehicle Systems
Government Collaborative Programs
Advanced Vehicle Engineering
Chrysler LLC
800 Chrysler Drive
Auburn Hills, MI 48326-2757
Phone (248) 576-3324
Email: jms61@chrysler.com

Daimler
Celine Gross, Manager
Fuel Cell Technology
Mercedes Benz, Fuel Cell Research and Technology
400 East Big Beaver Road, Suite 300
Troy, MI 48003
Phone (248) 434-5697
Cell (248) 633-4541
Email: celine.v.gross@daimler.com

Ford Motor Company
Rob Riley, Fleet Manager
Ford Motor Company
3300 Industrial Boulevard # 700
West Sacramento, CA 95691
Office: (916) 374-8350 Fax: (916) 376-0832
Email: rriley43@ford.com

General Motors
Britta K. Gross
GM, Fuel Cell Activities
Manager, Hydrogen & Electrical Infrastructure Development and Stragic Commercialization
Phone (586) 596-0382
Email: britta.gross@gm.com

Honda
Stephen Ellis, Manager
Fuel Cell Marketing
American Honda Motor Company, Inc.
1919 Torrance Boulevard
Torrance, CA 90501
Phone (310) 781-4451
Email: stephen_ellis@ahm.honda.com

Hyundai
Todd Suckow, Senior Engineer
Hyundai-Kia America Technical Center, Inc.
3300 Industrial Blvd., Suite 300
West Sacramento, CA 95691
Phone: (916)374-1978
Fax: (916)374-1971
Email: tsuckow@hatci.com

Nissan
Lance Atkins, Senior Project Engineer
Nissan Technical Center North America
Electric & Fuel Cell Vehicles
Phone (916) 375-3705
Email: lance.atkins@nissan-usa.com

Toyota
Matt McClory, Senior. Engineer
FC & HV Group
Advanced Technology Vehicles
Toyota Technical Center
1630 West 186th Street
Gardena, CA 90248
Phone: (310) 787-5808
Fax: (310) 787-5820
Email: matt.mcclory@tema.toyota.com

VII. PROPOSAL SCORING

The ARB will conduct an evaluation of each qualifying project based on the merit of the grant proposal. The maximum score for each proposal is 400 points.

Proposals that meet the minimum qualifications of this Grant Solicitation will be scored in accordance with the following Rating Criteria.

A. Rating Criteria

1. Cost (60 points)

Minimum Qualification: None

Cost points will be awarded on a sliding scale based on Kilograms-per-dollar (kg/$) with a maximum of 60 points possible. Kilograms-per-dollar is defined as the amount of State funding requested in the proposal divided by the proposed station's average annual design Hydrogen throughput. The scoring is meant to reward those proposals featuring above average value added in regards to the funding of the demonstration station. A simple formula taking the State's matching portion divided by the annual average daily dispensing capacity (based on seven day week) will be used to illustrate the relative value for comparing station cost proposals with one another. For example a 60kg/day station would have an average annual design throughput of 60kg X 7days X 52 weeks=15,600 kg/year. This number would be divided by the funding requested.

2. Dispensing Capacity (50 points)

Minimum Qualification: 40kg/24 hours with additional physical space for increased dispensing capacity at a later date.

Additional credit will be offered for a station generating in excess of the 40kg/day minimum value of hydrogen.

3. Written Technical Proposal Quality (30 points)

Minimum Qualification: None.

Points will be awarded up to a maximum of 30 points, based on the quality and completeness of the response to the technical requirements.

4. New Renewable Energy (30 points)

Minimum Qualification: None

Each station proposal must clearly state and support the percentage of new renewable energy they will be using. The renewables may be any percentage of the total station capacity. This means that a station may have 0, 5 or 100 percent renewables. However the renewables must not be counted on the existing California Renewable Portfolio Standard Program. Double counting is not allowed.

To encourage station proposals with hydrogen produced from new renewables, up to a maximum of 30 points will be awarded for 100 percent renewables.

5. Dispensing Time (50 points)

Minimum Qualification: 5 kg in 10 minutes @ 70MPa, 5kg in 5 minutes at 35MPa, and maximum back-to-back dispensing time for 3 consecutive fills of 5 kg at 70 MPa each is 45 minutes. Maximum 50 points for 5kg in 3 min @ 70 MPa. Maximim back-to-back dispensing time for 3 consecutive fills of 5 kg each at 35 MPa is 25 minutes.

6. Location (30 points)

Minimum Qualification: Station proposal is within the three clusters.

25 points are available for geographic location. Proposals must describe the geographic location, including street name and number, if applicable. It must state the driving distance to the nearest freeway on/off ramp. It must identify by name, major businesses located near the proposed station location. It must describe the amount of public exposure the station may garner through its location alone. The proposal must describe ease of ingress and egress, including traffic/lane merging patterns into and out of the station. Twenty five points will be awarded to those stations located in highly visible, easy to get to locations near major

thoroughfares. Stations placed in areas with Environmental Justice concerns, located in areas that exceed State or National PM2.5 standards or are in non-attainment for Ozone will receive 5 points.

7. Site Plan Engineering/Drawings (20 points)

Minimum Qualification: Plans are present

This evaluation will be based on the completeness of engineering drawings, identifying all the major components that make up the fuel storage, compression, cooling and dispensing systems (include site plan and drawings as Attachment 2: Site plan and engineering drawings. Points will be lowered if site plan and/or engineering drawings are incomplete or unclear, and/or missing key components.

8. Team Qualifications/Experience/Long-Term Commitment (50 points)

Minimum Qualification: Section must be present – scored on team experience

The proposals must highlight the team's specific experience in designing, planning, engineering, constructing, testing, operating, and maintaining gaseous fueling stations. The teams identified and included in the proposal must be the same teams that will be contracted to perform the station work. No substitutions will be allowed, unless first approved by the ARB grant manager. Proposals must include a list of representative clients of hydrogen or other related gaseous fuel projects designed and built over the last ten (10) years. Proposals must summarize hydrogen, renewable energy and related experience and relevant training that demonstrate the team's ability to construct, operate, and maintain gaseous hydrogen fueling stations.

Proposals must include examples of recently completed related projects along with planned and actual timelines for the projects. Proposals must include permission and locations for ARB and ARB representatives should they want to inspect such facilities.

Proposals must include resumes, licenses, certifications, permits, and/or similar statements of respective project managers and a complete list of sub-contractors.

9. Construction Schedule/Milestones (20 points)

Projects will be evaluated on the completeness and clarity of the construction/installation schedule for installing the fueling equipment at the location(s) (include as Schedule/Milestones Attachment ##: Construction Schedule/Milestones). Successful applicants will discuss plan and schedule for obtaining all necessary district permits and approvals from State agencies. 20 points will be awarded if schedule is complete and clear and realistic. Schedule accounts for obtaining permits and other agency approvals.

10. Co-Locating or Retail-Like Fueling Outlet (20 points)

Up to 15 points will be awarded to Proposer(s) whose station design includes co-location of hydrogen fueling with the dispensing of traditional fuels such as gasoline, diesel, Compressed Natural Gas (CNG), electricity, etc. Up to 5 points awarded to stations with modern, retail-like appearance even though there may be no co-location of fueling.

11. Community Outreach Proposal (20 points)

Minimum Qualification: Plan must be present – evaluated on completeness

Community outreach focuses on an audience made up of local permitting officials such as the fire marshal, key policy makers, and community planners – based organizations. At the latest, community outreach occurs at the very beginning of the permit process – often, before the permit is applied for, ensuring that there are no "surprises" as the initial planning of the hydrogen station progresses. In-person briefings and meetings are the norm, and

often, public workshops are presented – for example to educate local emergency responders on how to properly handle hydrogen fueling apparatus. The proposal must contain a draft outreach calendar, listing proposed outreach events along with target audience and proposed meeting location/neighborhoods.

12. Education/Outreach Plan Communication (20 points)

Minimum Qualification: Must have plan – degree of completeness is scored

Proposals must state the goals and objectives of the education and outreach plan. The proposal must describe in detail, the specific audience(s) that will be addressed and describe the communication messages that will be delivered. It must describe the media or specific materials that will be used to deliver the messages (video, brochures, posters, etc.) to the target audience. The proposal must describe the anticipated action that the prospect should take after experiencing the materials. Proposals must illustrate how materials will integrate with federal, State and local air pollution control entities to help ensure consistent or complementary environmental messages are being delivered. Proposals will include establishment of a toll-free number, whereby an individual may acquire additional information. This plan will be scored on degree of completeness.

VIII. Scoring Matrix

All proposals must meet the stated minimum requirements and include all mandatory submittals in order to be scored. If a proposal does not meet any one Minimum Qualification, it will automatically be deemed non-responsive and ineligible for award; therefore, no further evaluation of the proposal will be conducted.

	Scoring Item	Min. Score	Max Score
1.	**Cost** The cost points will be awarded on a sliding scale, based on a cost ratio. The cost ratio will be calculated for each proposal by taking the amount of funding requested, divided by the daily dispensing capacity, resulting in a ratio of kilograms dispensed per 24 hours per dollar funding requested. The most cost-effective station will be assigned the maximum of 60 points, with the other station taking a percentage of the 60 points based on their ratio.	N/A	60
2.	**Dispensing Capacity** Minimum Qualification: 40 kg/day, 7 days a week Scoring: 10 points for each 20 kilogram (kg) above the minimum up to a maximum of 50 points.	0	50
3.	**Written Proposal Quality/Completeness** Scoring: Points will be awarded up to a maximum of thirty (30), based on the quality of the response to the technical requirements.	0	30

4.	**New Renewable Energy** Minimum Qualification: 0 percent Scoring: One point for every three and one third, new renewable percentage points up to a maximum of 30 points for 100 percent renewables.	0	30
5.	**Dispensing Time** Minimum Qualification: 5 kg in 10 minutes @ 70 MPa maximum time. And, 3 consecutive fills of 5kg each at 70 MPa in 45 minutes. Maximum of 50 points for 5 kg in 3 minutes @ 70 MPa.	0	50
6.	**Location** Minimum Qualification: Within city limits of cities listed. State driving distance to nearest Hydrogen station. Include OEM commitment letters. List distance to the nearest freeway on/off ramp, describe access from major thoroughfare. State how location allows adequate public exposure, signage is easily viewable 25 points Placement in areas with Environmental Justice Concerns: Stations that are located in areas that exceed State or National PM2.5 standards or are in non-attainment for Ozone will receive five (5) extra points.	0	30
7.	**Site Plan Engineering** Projects will be evaluated based on the completeness of engineering drawings, identifying all components that make up the fuel dispensing system (include site plan and drawings, as Attachment 2): Site plan and or engineering drawings are complete, clear and have been reviewed by other agencies. Points will be lowered if site plan and/or engineering drawings are incomplete or unclear, and/or missing key components.	0	20
8.	**Bid Team Qualifications/Experience/Long Term Commitment** Scoring: Points will be awarded, up to a maximum of fifty points (50) based on team's Hydrogen (H2) station and gaseous station experience.	0	50
9	**Construction Schedule/Milestones** Projects will be evaluated on the completeness and timeliness of the construction/installation schedule for installing the fueling equipment. (include as schedule Attachment 3: Construction Schedule/Milestones). Successful applicants will discuss plan and schedule for obtaining all necessary district permits and approvals from State agencies. 20 points will be awarded if the schedule is complete, clear, and realistic. Schedule accounts for obtaining permits and other agency approvals.	0	20

10.	**Co-Locating or Retail-Like Fueling Outlet** Up to 15 points will be awarded to Proposer(s) whose station-design includes co-location of Hydrogen fueling with the dispensing of traditional fuels such as gasoline, diesel, CNG, electricity, etc. Up to 5 points, awarded to stations with modern retail-like appearance, even though there may be no co-location of fueling.	0	20
12.	**Community Outreach Proposal** Scoring: Points will be awarded, up to a maximum of twenty (20), based on completeness of plan and clarity of communication.	0	20
13.	**Education/Outreach Plan** Scoring: Points will be awarded up to a maximum of ten (10) based on completeness of plan and up to ten (10) for clarity of communication message and audience.	0	20
	Maximum Possible Score		**400**

IX. EVALUATION, SELECTION, AND AWARD

A. Proposal Opening and Evaluation

1. ARB will conduct an administrative evaluation in accordance with the Grant Solicitation requirements to determine a proposer's responsiveness and responsibility. Each proposal will be checked for completeness and/or absence of all required information and to ensure that the proposer meets the minimum qualifications in conformance with the submission requirements. During evaluation period, if an item is unclear or needs further clarification, proposers may be requested to provide additional documentation.

2. ARB will also conduct a technical evaluation which will be performed by an evaluation committee, consisting of ARB employees. If deemed necessary, independent academic, technical or policy experts may be called upon to answer any specific questions regarding the responses to the Grant Solicitation. These individuals will not be voting members of the panel nor participate in the evaluation process.

3. It is possible that any combination of proposed stations will be selected from the proposals submitted, based on the criteria identified herein. Proposals presenting two (2) similar station configurations may receive different scores due to graded value of locations, cost value factors, type and percentage of renewable energy used, etc. Only one station per proposal is allowed. Although, one may submit the same station configuration in multiple proposed locations in separate proposals.

4. Grants(s) shall be awarded to the proposer(s) with the highest score(s) and that meet the goals of SB 1505 (health & safety Code 43868-9). ARB reserves the right to award multiple contracts.

B. Proposal Rejection

1. Proposals must be submitted for the performance of all the services, as described herein. Any deviation from the Grant Solicitation will not be considered and may cause a proposal to be rejected.

2. Proposals must be complete in all respects, as required by the Grant Solicitation. A proposal may be rejected if it is conditional or incomplete, or if it contains any alterations of form or other irregularities of any kind. The State does not accept alternate contract language from a prospective contractor. A proposal with such language will be considered a counter proposal and will be rejected.

3. ARB reserves the right to reject any or all proposals for any reason. The State may reject any or all proposals and may waive any deviation deemed immaterial in a proposal. The State's waiver of an immaterial deviation shall in no way modify the Grant Solicitation document or excuse the proposer from full compliance with all requirements. All deviations will be examined to determine whether the deviation is immaterial (e.g., errors in mathematical computation or spelling). A material deviation will cause rejection of the proposal. A proposal must be rejected if any such defect or irregularity constitutes a material deviation from the Grant Solicitation requirements. If a deviation is deemed immaterial, then the proposal will be processed as if no deviation has occurred.

4. Proposals that contain false or misleading statements or which provide references that do not support an attribute or condition claimed by the proposal, may be rejected. If, in the opinion of the State, such information was intended to mislead the State in its evaluation of the proposal,

and the attribute, condition, or capability is a requirement of this Grant Solicitation, it will be the basis for rejection of the proposal.

5. Proposals received past the date and time specified in the **"Key Action Dates"** will be deemed non-responsive and rejected. Under no circumstances will any proposal be accepted past the date and time stated in Section III A. All such proposals received past the date and time will not be accepted.

C. Notice of Proposed Award

Notice of the proposed award(s) shall be posted in a public place in the lobby on the 1st Floor of the Cal/EPA building at 1001 I Street, Sacramento, California.

D. Award

Each winning proposer will receive a fully executed grant agreement, with all necessary attachments, language, including proposal, etc. Proposer should carefully read entire document and shall sign grant agreement and all required attachments.

E. Standard Conditions of Service

1. No oral understanding or agreement shall be binding on either party. Any changes or alterations to the grant agreement must be in writing and signed by both.

2. Proposer may subcontract out services. The proposer **must submit** with the proposal, the following subcontractor information: business name, business address, phone number, Federal Identification Number, number of employees, financial statement, signed certification that business is qualified and licensed to do business in California, signed certification that subcontractor has a minimum of three years experience working on/in hydrogen or related gaseous fuels and infrastructure, any other documents required such as license, insurance, etc., and a signed certification that subcontractor will abide by all terms and conditions as stated in the grant proposal and final grant agreement.

3. Payment will be rendered upon completion, acceptance of each task/milestone outlined in the grant proposal. The State may be invoiced on a monthly basis. There will be a ten (10) percent withhold from each progress payment. ARB will not, under any circumstances, issue any type of advance payment, in any amount. Contractor may submit the final invoice for payment upon completion and acceptance of final task, meaning: station is built, all permits obtained, all site and safety inspections have been approved for completion, the station has completed three years of operation, and the final report has been submitted to ARB. At that point payment in full shall be rendered.

X. MONITORING AND REPORTING REQUIREMENTS

After the final approval and execution of the grant agreement with ARB, the selected proposer must communicate with this project's ***Grant Manager, Michael J. Kashuba,*** the progress of the station construction and upon completion of construction the operation of the station. To ensure this takes place in a regular manner, the following deliverables will be required:

A. Construction Reporting

- Immediately following contract signing, representatives from all major partners will begin bi-weekly coordination meetings, in person, or via conference calls.

- From the beginning of the project, forward a copy of all training, performance, specification manuals, schematics, operator, maintenance and troubleshooting manuals to ARB staff as soon as practical.

- Immediate submittal of incident reports. Please use reports as developed by the California Fuel Cell Partnership incident reports, as contained in Appendix 1.

- Monthly status reports will be scheduled and conducted via teleconference line with staff and management of the Sustainable Transportation Technologies Branch. Meeting summaries must be provided via email.

- Quarterly progress meetings between key station and ARB personnel, held on-site, if necessary. Submittal of written notes/summary of meeting required

B Operations Reporting

- Monthly status reports will be held in person or via teleconference line with staff and management of the Sustainable Transportation Technologies Branch. Meeting summaries must be provided via email.

- Immediate submittal of incident reports. Please use reports as developed by the California Fuel Cell Partnership incident reports as contained in Appendix 1.

- Quarterly infrastructure station reports will be required once the station is operational. The format and content should follow, but not need to be identical to those developed by the National Renewable Energy Laboratories (NREL) Infrastructure – Quarterly Individual Site Template Revision: D. Reports to be submitted include the following: Individual Site Summary, Site Managers Log, On-Site Hydrogen Production Cost Log, Maintenance Log, Safety Log, Hydrogen Purity Log, Refueling data, On-site Hydrogen Production Efficiency Summary, Reformer Log, Electrolyzer Log, Compression Log, Storage and Dispensing Log, and for hydrogen energy stations, C-production Log. Examples of these spreadsheets are contained in Appendix 2.

- Quarterly written progress reports that summarize project status, achievement of milestones, preliminary findings, deviations from plan, new recommendations, if any, financial summary and invoices due to the ARB.

- Quarterly progress meetings between key station and ARB personnel, held on-site, if necessary. Submittal of written notes/summary of meeting required.

- Final report – must describe the highlights and challenges of what was involved in successfully establishing the station. The report must contain description of each of the main stages involved from planning through completion and operation of the station. The report must include list of recommendations that might benefit the construction of a station of similar design in the future. A draft of the final report must be submitted to ARB staff for review and comment at least sixty (60) days before the submission of the final report.

ARB reserves the right to inspect all funded projects with a minimum of 48-hour notice for the life of the project Grant.

ATTACHMENT 1
Required Checklist

A complete proposal package will consist of all the items listed in the Grant Solicitation as well as those items identified below. **Be sure that your proposal includes all required documents as stated in this Grant Solicitation.**

	Attachment	Attachment Name/Description
_____	Attachment 1	Required Attachment Check List
_____	Attachment 2	Proposer's Cost Sheet
_____	Attachment 3	References
_____	Attachment 4	Payee Data Record (STD 204) Grantor must complete and submit to the awarding agency to determine if the Grantor is subject to state income tax withholding pursuant to California Revenue and Taxation Code Sections 18662 and 26131. No payment shall be made unless a completed STD 204 has been returned to the awarding agency.
_____	Attachment 5	GREET Inputs Worksheet/Hydrogen Production and Renewable form

ATTACHMENT 2
Cost Sheet

LABOR	HOURS	RATE	=TOTAL
Program Manager (Job Description)	_____	@___	=_____
Project Managers (Job Descriptions)	_____	@___	=_____
Consultant Costs (Job Description)	_____	@___	=_____
Engineering Staff (Job Description)	_____	@___	=_____
Technicians (Job Description)	_____	@___	=_____
Clerical (Job Description)	_____	@___	=_____
Overhead Rate	_____	@___	=_____
Fringe Benefits	_____	@___	=_____
Sub Total			**$**_____

COST FOR ITEMIZED TASKS	
Site Preparation	_____
Station Design	_____
Testing/Certification/Type Evaluation	_____
Renewable generation System Design	_____
Other	_____
Sub Total	**$**_____
CAPITAL EQUIPMENT COSTS	
Dispensers	_____
Purifier/Chiller	_____
Storage/Compression	_____
Reformer/Electrolyzer	_____
Photovoltaic/Wind/Other	_____
Additional Equipment	_____
Information Kiosk/Collateral Materials	_____
Sub Total	**$**_____
MAINTENANCE COSTS	
Routine Service	_____
Warranty Cost	_____
Other	_____
Sub Total	$_____
OPERATING COSTS TOTAL	**$**_____
REAL ESTATE COST SHARE ALLOWANCE – new stations only	
25 percent of land value up to $100,000 maximum (appraisal required)	**$**_____
OTHER DIRECT COSTS	
Travel	_____
Operations/Maintenance/Insurance & Indemnification	_____
Fuel Trucking/Transportation	_____
Other	_____
Permits	_____
Sub Total	**$**_____
FUNDING SOURCES	
_____	_____
_____	$_____
GRAND TOTAL COSTS	**$**_____
ARB Match Funds Requested (Max 70 percent of Grand Total)	**$**_____

Signature of Proposer: _____

ATTACHMENT 3
References

Complete the table below listing information for three references illustrating at least three years of experience designing, planning, engineering, constructing, testing, operating, and maintaining gaseous fueling stations**.** If three references cannot be provided, please explain why on an attached sheet of paper.

REFERENCE 1			
Name of Firm			
Street Address	City	State	Zip Code
Contact Person		Telephone Number	
Dates of Service		Value or Cost of Service	
Brief Description of Service Provided			

REFERENCE 2			
Name of Firm			
Street Address	City	State	Zip Code
Contact Person		Telephone Number	
Dates of Service		Value or Cost of Service	
Brief Description of Service Provided			

REFERENCE 3			
Name of Firm			
Street Address	City	State	Zip Code
Contact Person		Telephone Number	
Dates of Service		Value or Cost of Service	
Brief Description of Service Provided			

ATTACHMENT 4
Payee Data Record

STATE OF CALIFORNIA-DEPARTMENT OF FINANCE

PAYEE DATA RECORD

(Required when receiving payment from the State of California in lieu of IRS W-9)

STD. 204 (Rev. 6-2003)

1

INSTRUCTIONS: Complete all information on this form. Sign, date, and return to the State agency (department/office) address shown at the bottom of this page. Prompt return of this **fully completed** form will prevent delays when processing payments. Information provided in this form will be used by State agencies to prepare Information Returns (1099). See reverse side for more information and Privacy Statement.

NOTE: Governmental entities, federal, State, and local (including school districts), are not required to submit this form.

2

PAYEE'S LEGAL BUSINESS NAME (Type or Print)

SOLE PROPRIETOR – ENTER NAME AS SHOWN ON SSN (Last, First, M.I.)

E-MAIL ADDRESS

MAILING ADDRESS

BUSINESS ADDRESS

CITY, STATE, ZIP CODE

CITY, STATE, ZIP CODE

3

PAYEE ENTITY TYPE

CHECK ONE BOX ONLY

ENTER FEDERAL EMPLOYER IDENTIFICATION NUMBER (FEIN): ☐☐–☐☐☐☐☐☐☐

☐ **PARTNERSHIP**

☐ **ESTATE OR TRUST**

CORPORATION:

- ☐ **MEDICAL** (e.g., dentistry, psychotherapy, chiropractic, etc.)
- ☐ **LEGAL** (e.g., attorney services)
- ☐ **EXEMPT** (nonprofit)
- ☐ **ALL OTHERS**

☐ **INDIVIDUAL OR SOLE PROPRIETOR ENTER SOCIAL SECURITY NUMBER:** ☐☐☐–☐☐–☐☐☐☐

(SSN required by authority of California Revenue and Tax Code Section 18646)

NOTE: Payment will not be processed without an accompanying taxpayer I.D. number.

4

PAYEE RESIDENCY STATUS

☐ California resident - Qualified to do business in California or maintains a permanent place of business in California.

☐ California nonresident (see reverse side) - Payments to nonresidents for services may be subject to State income tax withholding.

- ☐ No services performed in California.
- ☐ Copy of Franchise Tax Board waiver of State withholding attached.

5

I hereby certify under penalty of perjury that the information provided on this document is true and correct. Should my residency status change, I will promptly notify the State agency below.

AUTHORIZED PAYEE REPRESENTATIVE'S NAME (Type or Print)

TITLE

SIGNATURE

DATE

TELEPHONE

( )

6

Please return completed form to:

Department/Office: _____

Unit/Section: _____

Mailing Address: _____

City/State/Zip: _____

Telephone: (___) _____ **Fax:** (___) _____

E-mail Address: _____

ATTACHMENT 5
GREET Inputs Worksheet/Hydrogen Production and Renewable Form

All the information that is provided on this questionnaire will become part of your proposal record.

Please complete to the best of your ability; the information contained on this form. The information will be used in evaluating emissions of proposed station. The evaluation will be performed using the GREET model as explained in Appendix 5. Appendix 5 explains the both the process, methodology and baseline for emissions analysis. If proposer completes form early and submits to ARB, staff will contact proposer if any clarification is necessary prior to final bid submittal date.

Proposer Information

Proposer Organization (name/location):
Organization contact name: (First/Last)
Contact phone number:
Contact email:
Alternate contact:
Alternate contact phone number:
Alternate contact email:
Date:

Hydrogen Production Specifics

Hydrogen Production Method: Please check your method of hydrogen production, if production method is not listed, write in method and check box marked other.	□ Steam Methane Reforming □ Electrolysis □ Other	□ Auto Thermal Reforming □ Thermal
	If other please explain:	

Location of hydrogen production: Please indicate the location of hydrogen production in relation to the location of vehicle fueling. (e.g. onsite production would have no bulk delivery of the fuel to reach a fueling location)	□ Onsite □ Central □ Combination □ Other	
	If, combination or other please explain:	
	Physical Address:	

Delivery method: Please indicate the type of delivery method used If hydrogen is transported to fueling location.	**Method** □ Truck □ Pipeline □ Other	**Delivery Distance in (miles) one way:**
	If other explain:	
	If by truck, what type of truck and hydrogen capacity (vehicle year, GVW and hydrogen carrying capacity kg)?	

Hydrogen Feedstock: Initial fuel used for conversion to hydrogen.	□ Natural Gas □ Water □ Bio-derived □ Other
	If other or Bio-derived please explain:
	Energy content of feedstock fuel:

If process is not captured in the above form please explain for the purpose of emissions evaluation:

Assumptions used in evaluating emissions are explained in appendix 7.

Renewable Energy Information

All stations receiving funding from the state must incorporate a minimum of 33.3 percent renewable hydrogen into the station design. The renewable information provided by bidders will be evaluated by ARB to ensure the proposal meets the renewable energy requirements for hydrogen production. The renewable information will also be used in the evaluation of emissions. Please complete this form to the best of your ability and include any additional information that may be necessary for ARB to evaluate your proposal.

Renewable Energy specifics

Designed maximum hydrogen production (kg/day or kg/year):	

Type of renewable energy Source:	□ Photovoltaic □ Geothermal □ Wind □ Biogas □ Biomass □ Other: Other, please explain:

Energy content or energy potential of renewable energy feedstock:	For **electrical** generation, report in kilowatt hours per year production potential. For PV use the industry standard of 1800 kwh/year per kilowatt.
	If using a renewable feedstock such as biofuel report the energy content of the feedstock in units of energy per unit of measure and conditions (i.e., Btu/lb, MJ/kg, mmBtu/standard cubic foot, joules/cubic meter).
Overall production process efficiency (btu of energy/btu H2)	

List energy sources, renewable and non-renewable, that will be used for hydrogen production:

Energy source or technology	**Renewable?**	**Amount to be used (unit of energy/kg H2)**	**Application date if after startup:**
1)			
2)			
3)			

Please add or explain any additional pertinent information regarding your specific renewable energy resource:

Assumptions used
Energy content of hydrogen: 33.3 kWh/kgH2
Biogas composition 65 percent methane

EXHIBIT A
Scope of Work

Grantor agrees to design, build, operate and maintain a new hydrogen refueling station or combined fuel cell energy/fueling station ("stations"). The new station will meet the following environmental requirements, capacities and specifications. The new station should begin operation on or about June 30, 2010, and remain operational for at least three (3) years after commissioning. Grantor is to provide reports during the entire three (3) years of operation. ARB will provide funding for the design, construction, and operation of the hydrogen station. ARB will have no fee title interest to the hydrogen station once the station is in full operation.

Environmental Requirements

A. 30 percent Reduction of Greenhouse Gas emissions relative to gasoline
B. No Increase in Toxic Pollutant emissions
C. 50 percent decrease in criteria pollutants (ROG + NOx)
D. 0-100 percent renewables requirement (optional)

Minimum Capacities and Specifications

E. Dispensing capacity of no less than 40 kg/day, seven days a week
F. Able to perform an initial 5 kg 70 MPa fill in 10 minutes or less
G. Able to perform three consecutive 5 kg, 70 MPa fills in 45 minutes
H. Able to perform 3 consecutive 5 kg, 35 MPa fills in 25 minutes
I. Design to provide real-time reporting of station status and remote monitoring of station alerts
J. Filling communications hardware as per SAE-2799
K. Dispense fuel cell grade hydrogen per SAE J-2719 or equivalent at nozzle
L. Nozzle geometry compliant with SAE J2799 for 70 MPa and SAE 2600 for 35 MPa
M. Provide calculations for Hydrogen fuel production cost and the sales price to the consumer
N. J-2601 – defining fueling strategies for compressed hydrogen vehicle fueling communication devices
O. Fueling Specification for 70MPa Compressed Hydrogen Vehicles – Revision Version (A) with the 3 minute 5 kg fill is the target – Appendix 6.
P. Include plan for dispenser type approval through CDFA/DMS.

Siting/Operational Requirements

Q. Station site – must be able to show title or legal access to land or real property with documentation (grant deed, deed) to be provided to ARB at time of award.
R. Station Location – located in three existing clusters: San Francisco Bay Area, Sacramento Area, and Los Angeles Area, not less than five miles from nearest public station, unless demand is justified.
S. Convenient ingress/egress, well lit retail appearance.
T. Station operation from 6:00 A.M to 10:00 P.M, seven days per week.
U. Attendant available with prior notice.
V. Universal PIN access or similar customer ID process.
W. No personal protection equipment required.
X. Provide necessary access to CDFA/DMS personnel for certification tests.
Y. Station meets all codes, standards and regulations that govern Hydrogen-fueling stations (NFPA 52 and others).
Z. Community Involvement plan provided.
AA. Provides for public access to all OEM vehicles and approved conversions.

BB. Vehicles which will use station identified to ensure thruput.
CC. Meets or will meet all performance and safety standards set by Authorities Having Jurisdiction (AHJ).

Other Deliverables – Grantee must communicate with the Grant manager on a regular basis to discuss the progress of the stations' construction. To ensure this takes place in a regular manner, Grantee shall also provide the following deliverables in addition to the above-cited stations:

- Immediate submittal of incident reports. Preferably use reports as developed by the California Fuel Cell Partnership incident reports, as contained in Appendix 1.

- Monthly status reports will be scheduled and conducted via teleconference line with staff and management of the Sustainable Transportation Technology Branch.

- Quarterly infrastructure station reports will be required, once the station is operational. The format must follow those specified in the "National Renewable Energy Laboratories (NREL) Infrastructure – Quarterly Individual Site Template Revision: F.," unless an alternative format is approved in writing by the Grant manager. Reports to be submitted, include the following: Individual Site Summary; Site Managers Log; On-Site Hydrogen Production Cost Log; Maintenance Log; Safety Log; Hydrogen Purity Log; Refueling Data, On-site Hydrogen Production Efficiency Summary, Reformer Log, Electrolyzer Log, Compression Log, Storage and Dispensing Log. In addition to these reports, Grantee shall provide for hydrogen energy stations, a C-production Log. Examples of these spreadsheets are contained in Appendix 2.

- Quarterly written progress reports that summarize project status; achievement of milestones; preliminary findings; deviations from plan; new recommendations, if any; and financial summary and invoices due to ARB.

- Quarterly progress meetings between key station and ARB personnel, held on-site if deemed necessary by ARB. Grantee shall submit written notes or a summary of such meetings.

- Final report – must describe the highlights and challenges of what was involved in successfully establishing the station. The report must contain a detailed description of each of the main stages involved from planning through completion and operation of the station. The report must include a list of recommendations that might benefit the construction of a station of similar design in the future. A draft of the final report must be submitted to ARB staff for review and comment at least sixty (60) days before the submission of the final report. Grantee's final report shall follow the format specified in Exhibit F, "Final Report Format."

- From the beginning of the project, the Grantee will forward a copy of all training, performance, specification manuals, schematics, operators, maintenance, and troubleshooting manuals to ARB staff, as soon as practical.

- Additional requirements and specifications are contained in the following appendices:
  Appendix 1: Incident Tracking Form
  Appendix 2: Infrastructure Quarterly Individual Site Template
  Appendix 3: Renewable definitions
  Appendix 4 Examples – Calculating the 33.3 percent renewable hydrogen contribution
  Appendix 5: Documenting Senate Bill 1505 Emissions Criteria have been met
  Appendix 6: Fueling Specification for 70 MPa Compressed Hydrogen Vehicles (Version A.)

EXHIBIT B
Final Report Format

The Final Report (Report) is a summary record of the station construction, operation and its overall performance over the entire period. The Report must be well organized and contain certain specific information. The ARB's Mobile Source Control Division (MSCD) reviews all Final Reports, paying special attention to the Abstract and Executive Summary. If MSCD finds that the Report does not fulfill the requirements stated in this Exhibit, final payment for the work completed may be withheld. This Exhibit outlines the requirements that must be met when producing the Report.

Note: In partial fulfillment of the Final Report requirements, the Grantor shall submit a copy of the Report on a CD in PDF format and in a word-processing format, preferably in Word - Version 6.0 or later. This is in addition to the submission of any paper copies required. The diskette shall be clearly labeled with the Grant title, ARB Grant number, and the words "Final Report", and the date the report was submitted.

Legibility. Each page of the approved Final Report must be clearly legible.

Binding. The draft Report, including its appendices, must be either spiral bound or stapled, depending on size. The revised Report and its appendices should be spiral bound, except for two unbound, camera-ready originals.

Cover. The Grantor will provide a standard cover.

Two-sided. To conserve paper, both the draft Report and the revised Report should be printed on both sides of the page.

Title. The title of the Report should exactly duplicate the title of the Grant unless a change is approved in writing by the Project Representative.

Spacing. In order to conserve paper, copying costs, and postage, please use single or one-line (1) spacing.

Page size. All pages should be of standard size (8 ½" x 11") to allow for photo-reproduction.

Large tables or figures. Foldout or photo-reduced tables or figures are not acceptable because they cannot be readily reproduced. Large tables and figures should be presented on consecutive 8 ½" x 11" pages, each page containing one portion of the larger chart.

Color. Color presentations are not necessary; printing shall be black on white only where ever possible.

Corporate identification. Do not include corporate identification on any page of the Final Report, except the title page.

Unit notation. Measurements in the Reports should be expressed in metric units. However, for the convenience of engineers and other scientists accustomed to using the British system, values may be given in British units as well in parentheses after the value in metric units. The expression of measurements in both systems is especially encouraged for engineering reports.

Section order. The Report should contain the following sections, in the order listed below:

Title page
Disclaimer
Acknowledgments
Table of Contents
List of Figures
List of Tables
Abstract
Executive Summary
Body of Report
References
Glossary of Terms, Abbreviations, and Symbols
Appendices

Page numbering. Beginning with the body of the Report, pages shall be numbered consecutively beginning with “1”, including all appendices and attachments. Pages preceding the body of the Report shall be numbered consecutively, in ascending order, with small Roman numerals.

Title page. The title page should include, at a minimum, the Grant number, Grant title, name(s) of the principal partners, Grantor organization, date, and this statement: "Prepared for the California Air Resources Board and the California Environmental Protection Agency"

Disclaimer. A page dedicated to this statement must follow the Title Page:

The statements and conclusions in this Report are those of the Grantor and not necessarily those of the California Air Resources Board. The mention of commercial products, their source, or their use in connection with material reported herein is not to be construed as actual or implied endorsement of such products.

Acknowledgments. Only this section should contain acknowledgments of key personnel and organizations that were partners or otherwise associated with the project. The last paragraph of the acknowledgments must read as follows:

This Report was submitted in fulfillment of [ARB Grant number and project title] by [Grantor organization] under the [partial] sponsorship of the California Air Resources Board. Work was completed as of [date].

Table of Contents. This should list all the sections, chapters, and appendices, together with their page numbers. Check for completeness and correct reference to pages in the Report.

Abstract. The abstract should tell the reader, in non-technical terms, the purpose of the station, and scope of its operation, describe the work performed, and present the results obtained and conclusions. The purpose of the abstract is to provide the reader with useful information and a means of determining whether the complete document should be obtained for study. The length of the abstract should be no more than about 200 words. Only those concepts that are addressed in the executive summary should be included in the abstract.

Executive Summary. The function of the executive summary is to inform the reader about the important aspects of the work that was done, permitting the reader to understand the project without reading the entire Report. It should state the objectives of the project and briefly describe the operations used,

results, conclusions, and recommendations for design or operations changes for future stations. All of the concepts brought out in the abstract should be expanded upon in the Executive Summary. Conversely, the Executive Summary should not contain concepts that are not expanded upon in the body of the Report.

- The Executive Summary will be used in several applications as written; therefore, please observe the style considerations discussed below.
- Limit the Executive Summary to two pages, single spaced.
- Use narrative form. Use a style and vocabulary level comparable to that in Scientific American.
- Discuss the results rather than listing them.
- Avoid jargon.
- Define technical terms.
- Use passive voice if active voice is awkward.
- Avoid the temptation to lump separate topics together in one sentence to cut down on length.

The Executive Summary should contain four sections: Background, Methods, Results, and Conclusions.

The Results Section. The Results section should be a single paragraph in which the main findings are cited and their significance briefly discussed. The results should be presented as a narrative, not a list. This section must include a discussion of the implications of the work for the Board's relevant regulatory programs.

Conclusions and Lessons Learned Section. This section should be relatively short. This should be presented as both a narrative and short lists. Include a short discussion of recommendations for further stations.

Body of Report. The body of the Report should contain the details of the research, divided into the following sections:

Introduction. Clearly identify the scope and purpose of the station. Provide a general background of the project.

Project details. Describe the various phases of the project, the station development and operation. Describe the design and construction phases of the station, materials, equipment, testing, performance, operation, maintenance, reliability, etc. Describe quality assurance and quality control procedures.

Results. Present the results in an orderly and coherent sequence. Summarize using graphs and charts the station report data presented in Appendices 1 and 2. This should include a summary record of average fuelings per day, fuelings per month, and average vehicle fueling times for both 350 and 700 bar pressures. Where possible, present historical geographical data on vehicles using the station. Present maintenance and cost summaries. Describe statistical procedures used and their assumptions.
.

Summary and Conclusions. This section should be relatively short. This should be presented as both a narrative and short lists. Include a short discussion of recommendations for further stations.

Recommendations. Use clear, concise statements to recommend (if appropriate) future station development that is a reasonable progression of the study and can be supported by the results and discussion.

References. Please list these together in a separate section, following the body of the Report

List of inventions reported. If any inventions have been reported, or publications or pending publications have been produced as a result of the project, the titles, authors, journals or magazines, and identifying numbers that will assist in locating such information should be included in this section.

Glossary of terms, abbreviations, and symbols. When more than five of these items are used in the text of the Report, prepare a complete listing with explanations and definitions. It is expected that every abbreviation and symbol will be written out at its first appearance in the Report, with the abbreviation or symbol following in parentheses [i.e., carbon dioxide (CO_2)]. Symbols listed in table and figure legends need not be listed in the Glossary.

Appendices. Related or additional material that is too bulky or detailed to include within the discussion portion of the Report shall be placed in appendices. If a Report has only one appendix, it should be entitled "APPENDIX". If a Report has more than one appendix, each should be designated with a capital letter (APPENDIX A, APPENDIX B). If the appendices are too large for inclusion in the Report, they should be collated, following the binding requirements for the Report, as a separate document. The Project Representative will determine whether appendices are to be included in the Report or treated separately. Page numbers of appendices included in the Report should continue the page numbering of the Report body. Pages of separated appendices should be numbered consecutively, beginning at “1”.